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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,104	11/02/2006	Jan Wim Vrijbloed	753-65 PCT/US	3652
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HOFFMANN & BARON, LLP 6900 JERICHO TURNPIKE SYOSSET, NY 11791			EXAMINER KOSAR, ANDREW D	
			ART UNIT 1654	PAPER NUMBER
			MAIL DATE 10/14/2010	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/579,104

**Applicant(s)**

VRIJBLOED ET AL.

**Examiner**

ANDREW D. KOSAR

**Art Unit**

1654

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 July 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 4-7 and 11-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 8-10 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-06)  
Paper No(s)/Mail Date 5/12/06
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of Group I, with R<sup>1</sup> being Glu-Thr and R<sup>2</sup> being Thr-Lys (the pairing of AB/BC) and the sequence of Z being GTKWFSNHYQTG, in the reply filed on July 29, 2010 is acknowledged. The traversal is on the ground(s) that Applicant asserts the object of the invention is to stabilize a potential binding partner featuring a specific structural motif, the  $\beta$ -hairpin structure and Z is only peptides with that motif. Applicant further asserts that one of skill in the art is aware that A, B and C are selected to stabilize the  $\beta$ -sheet. Applicant finally argues that there is no burden to search the entire application and asserts that the search would be coextensive. This is not found persuasive because contrary to Applicant's assertions, the generic formula of claim 1 does not describe a common core structure. Z, for example, is any peptide, and while amended to describe some structural feature, does not describe a common core. The moieties R<sup>1 and 2</sup> do not overlap in structure and do not describe a common core, and the presence of two cysteine residues merely separated by some undefined peptide does not provide a substantial structure. Furthermore, the search is based upon the unique structures, and contrary to applicant's assertions, the same classifications are not searched and the search for one unique R<sup>1</sup>/R<sup>2</sup> pairing would not result in the discovery of any other. Finally, unity of invention is established with the claims presented prior to the evaluation and not following the reply to the action, as the cycle could continue *ad nauseam* if Applicant were allowed to amend and request reconsideration, never reaching substantive examination of the claims.

The requirement is still deemed proper and is therefore made FINAL.

Applicant indicates claims 1-3, 8-10 and new claim 15 read on the elected invention. Claims 4-7 and 11-14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on July 29, 2010.

Applicant's elected species was found to be free of the prior art. The search was extended for the R<sup>1</sup>/R<sup>2</sup> pairing Glu-Thr and Thr-Lys with the additional species of claim 3 and 10. The search was then extended to the genus of R<sup>1</sup> and R<sup>2</sup> pairing of Glu-Thr and Thr-Lys, where Z is any peptide 4-20 amino acids long (e.g. claim 1). Allowable subject matter is indicated below. The search was then extended within the genus of the AB/BC pairings as set forth below, specifically to GG/GG.

#### ***Allowable Subject Matter***

Claim 15 would be allowable if the claim objection, set forth below, is overcome.

Additionally, Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and if limited to the R<sup>1</sup> and R<sup>2</sup> pairing of Glu-Thr and Thr-Lys.

Claim 1 would be allowable if limited to the R<sup>1</sup> and R<sup>2</sup> pairing of Glu-Thr and Thr-Lys.

#### ***Claim Objections***

**Claims 1, 2 and 15** are objected to because of the following informalities:

Claims 1 and 2 recite non-elected inventions (pairings other than AB and BC and species not falling within AB/BC pairing).

Claim 15 recites a sequence without a sequence identifier (SEQ ID NO).

Claim 9 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 9 is drawn to “a synthetic peptide having a structure which is identical to the structure of the peptide according to claim 8.” This does not limit the peptide of claim 9, explicitly stating it to be “identical”, and thus is not further limiting.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 2 and 10** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 lacks clear antecedent basis. Claim 1 does not provide support for Leu for any of A, B or C, and thus the claim lacks clear antecedent basis.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 2, 8 and 9** are rejected under 35 U.S.C. 102(b) as being anticipated by WRIGHTON (N.C Wrighton et al. Science (1996) 273, pages 458-463; IDS 5/12/06).

Wrighton teaches the peptide GGCRIGPITWVCGG (e.g. Table 1), where R<sup>1</sup> and R<sup>2</sup> are each GG, Z is RIGPITWV.

**Claims 1-3 and 8-10** are rejected under 35 U.S.C. 102(b) as being anticipated by BOUCHER (WO 00/62815 A2).

Boucher teaches the peptide GGCRGDMGGCGG (e.g. page 13), where R<sup>1</sup> and R<sup>2</sup> are each GG, Z is RGDMGG, which contains RGD.

### ***Information Disclosure Statement***

While Applicant has submitted a copy of Wrighton with the IDS, it is difficult to discern, and thus a clean copy has cited and been supplied on the enclosed IDS.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW D. KOSAR whose telephone number is (571)272-0913. The examiner can normally be reached on Monday - Friday 08:00 - 16:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia J. Tsang can be reached on (571)272-0562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Andrew D Kosar/  
Primary Examiner, Art Unit 1654